

Evaluation Work Group Quadrennial Plan Comments

The Evaluation Work Group (EWG) was established by the Commission in the first Quadrennial Plan to address ongoing issues in Focus on Energy evaluation. Under the scope set by the Commission, EWG has worked through the present quadrennium to define appropriate approaches for measuring energy savings and program attribution; provide guidance on Focus evaluation plans; ensure Focus evaluation reports present clear and accurate findings; and review other opportunities for improving the accuracy of Focus on Energy's evaluation practices.

The scope for the present Quadrennial Plan addresses several issues related to program evaluation practices. EWG offers the following comments with the intent of:

- Providing information the Commission may find valuable on members' experience with historical Focus evaluation practices and evaluation practices in other programs; and
- Offering EWG's opinion on technical evaluation questions that are relevant to the broader policy issues before the Commission.

These comments reflect the consensus of three EWG members: industry expert George Edgar and the representatives of the program evaluator and program administrator. EWG's utility representative abstains from these comments because her views are reflected in the separate comments submitted by the Wisconsin Utilities Association, WPPI, and the Municipal Electric Utilities of Wisconsin. The PSC representative abstains from these comments because of his staff role in conducting quadrennial planning analysis.

Issue: Role of Focus in Positioning Wisconsin to Cost-Effectively Meet Federal Carbon Standards

- Focus on Energy achieves measureable carbon (and other pollutant) reductions and can cost-effectively serve as a component of Wisconsin's compliance with federal carbon standards.
- Focus on Energy already has appropriate methods in place for measuring carbon emission reductions associated with the program. If resources permit those measurements could benefit from additional study, such as updates to the load shapes and emissions factors used in the calculation, and/or efforts to define the carbon peak.

Issue: Determining Measure Lifetime, Degradation, and Savings Persistence

- During 2012 and 2013, Focus on Energy's program and evaluation staff worked together to develop standardized Effective Useful Lives (EULs) for program measures based on available measure lifetime research and program experience. EWG believes this process was adequate and cost-effective for establishing appropriate EULs. That said, the EWG is open to participating in or overseeing a process that solicits input from a broader set of stakeholders, or that involves more primary research on lifetimes in Wisconsin as part of the ongoing effort to keep values current and maximize the validity of EULs. Such a process may be especially appropriate for developing EULs for emerging savings opportunities such as behavior change programs.
- EWG intends to continue monitoring all nationwide research on savings degradation. However, after reviewing this issue during the present quadrennium, including the experience in other jurisdictions, EWG does not consider application of a decay rate to be an evaluation priority in the near future. EWG bases this conclusion on the limited evidence currently available for determining an appropriate rate, and the probability that applying any rate would have minimal effects on program savings.

Issue: Cost-Effectiveness Tests

- Focus on Energy's existing set of cost-effectiveness tests is appropriate for tracking and assessing program performance. Other tests could also be appropriate based on the policy goals of the Commission.
 - The current modified TRC is a reasonable primary cost-effectiveness test. However, the current TRC test does not include participant non-energy benefits/costs. The program could consider incorporating this element into the current modified TRC test to better align the benefits and costs in the TRC test (e.g. incremental measures costs paid by a customer and participant non-energy benefits). However, any effort to include those benefits/costs in the test (e.g. through a specific value or adder) should be balanced against the costs that would be incurred to accurately measure them. Excluding this element can yield cost-effectiveness results that are significantly undervalued.
 - The expanded TRC and the utility/administrator tests are reasonable to continue using as additional tests. The expanded TRC provides valuable data on the economic impacts of the program, and the utility/administrator test is useful for informing program design.

- Other analytical options could provide a clearer and more comprehensive picture of Focus' rate and bill impacts than the Ratepayer Impact (RIM) Test, by more fully identifying and taking into account the specific effects on rates and bills of program participants and non-participants, and the complete range of long-term costs and benefits resulting from the portfolio of programs. This information which is not available from the RIM test provides a better basis for the Commission to understand such impacts and to exercise its judgment about the need and best ways to mitigate undesirable impacts without unnecessarily losing the benefits of cost-effective energy efficiency.

Issues: Electricity Avoided Costs/Natural Gas Avoided Costs

- It would be appropriate to use consistent approaches for calculating electric and natural gas avoided costs.
- Since program savings are calculated on a lifecycle basis, it is appropriate to calculate avoided costs based on projections of long-run future costs.
- The use of forward-looking Locational Marginal Prices (LMPs) for MISO over an extended analysis period for MISO adequately captures aspects of avoided energy costs. Avoided capacity costs should include all capital costs to insure reliability (e.g. the capacity cost of a new peaking unit). Any capital costs above those of a peaking unit that can be avoided (e.g. incurred to build a base load unit that can be avoided) should be treated as avoided energy costs since those capital costs are incurred to achieve lower system energy costs.

Issue: Discount Rate

- Use of a public, risk-adjusted or societal discount rate would be appropriate.
 - A public or risk-adjusted rate can be justified because Focus on Energy is publicly funded through system benefit charges and therefore carries low risk of failed cost recovery.
 - A societal rate can be justified because Focus on Energy provides societal benefits such as reductions in carbon emissions.

Issue: Pilot Behavioral Programs:

- There is sufficient evidence from existing programs to conclude that residential behavioral programs can achieve cost-effective energy savings. Programs with savings potential could include home energy reports, direct customer feedback, and personalized marketing.

- Experimental research designs, with random assignment between experimental and control groups, are the appropriate method for evaluating outcomes of behavioral programs.

Issue: Balance of Emphasis between Resource Acquisition and Market Transformation

- There are opportunities for increased market transformation activities that are likely to provide significant on-going energy savings for Focus and Wisconsin ratepayers. Effective efforts could address significant institutional/market barriers in a variety of markets/submarkets including, for example, institutional barriers to residential retrofits due to the current market's failure to incorporate efficiency information into residential real estate (MLS) listings, or enhancing the reliability of savings estimates to overcome building owner concerns that she/he may not recover the cost of an energy efficiency retrofit prior to sale or at time of sale (due to the lack of an identified energy efficiency premium in the home sale price).
- If the Commission wishes to increase Focus' emphasis on market transformation, it should consider reevaluating its existing frameworks for designing programs and setting savings goals. In particular, many of the effects of market transformation activities typically occur over a longer timeframe than the one-year and four-year periods over which savings are currently tracked. While some market transformation programs (in certain equipment/appliance markets) may generate significant immediate savings, not all valuable market transformation efforts should be expected to do so. Such efforts may not appear attractive to a Program Administrator with a limited budget and an aggressive near term savings target. As a result, cost-effective, initiatives that could reduce the barriers to increased energy efficiency going forward may be foregone.
- Market transformation activities would also require different evaluation practices than existing Focus programs. Appropriate practices do exist for identifying market transformation effects, and could include tracking sales and inventory metrics and/or measuring energy savings through follow-ups to Focus' current baseline study designed to measure baseline changes over time. In addition to implementing measurement efforts, the program would also have to determine appropriate practices for projecting market transformation benefits that will occur in future years and assessing the present value of those benefits to the program.